A CRITICAL ANALYSIS OF INDUCED ABORTION

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AN experience of slightly more than two years with a liberalized abortion law provides the opportunity for critical review of what we have done and what we have learned.

LEGAL ASPECTS

Abortion has reemphasized that physicians for the most part are conservative. Although most gynecologists have a favorable attitude toward the liberalized law the majority of practicing gynecologists have been slow in integrating abortion services into their practices, and they have not learned the newer and safer techniques of paracervical block and suction curettage. The majority of abortions are being done by younger gynecologists. In our department there is a real generation gap between the skills and knowledge of our resident and attending staff in regard to first-trimester abortion.[7]

More than 50% of the abortions in New York City are done in women from out of state. This means that the majority of gynecologists in the United States are awaiting additional legal license.[9] Several judicial rulings might suggest that this conservatism is not warranted.

The genesis for the change in present abortion laws can be credited to Roy Lucas, who was then a student at New York University Law School. In a senior project paper he proposed the essentials of the argument: "Although interests at stake in the abortion controversy are diverse, subtle, novel, and sensitive, the case appears ultimately to fit within the classical framework of governmental interference with important interests of individual liberty, and to be capable of resolution in traditional and constitutional terms."[8]

Three key court decisions have ensued which, on the surface, would appear to provide encouragement as well as freedom to perform abortions for all gynecologists. In California, on September 5, 1969, Justice

Raymond A. Peters ruled that allowing abortions only when it is "necessary to preserve the life" of the mother is unconstitutionally vague and violates the fundamental notion of due process of law. Dictionary definitions and judicial interpretations fail to provide a clear meaning for the words "necessary to preserve" and, taking the words separately, no clear meaning emerges. In summary, Justice Peters said that to preserve life should not be defined as a risk approaching the certainty of death, and that such an interpretation was "an invalid abridgement of the woman's constitutional rights."

Judge Gerhard A. Gesell on November 10, 1969, in Washington D.C., picked up the Lucas tactic and suggested that a woman's liberty and right of privacy extended to family, marriage, and sex matters, and might include the right to terminate an unwanted pregnancy.

A third interpretation and rejection of traditional abortion laws was offered by the Supreme Court of the United States on April 21, 1971. Justice Hugo Black stated:

> It would be highly anomalous for a legislature to authorize abortions necessary for life or health and then to demand that a doctor, upon pain of one to ten years imprisonment, bear the burden of proving that an abortion be performed within the category. . . . We are unable to believe that Congress intended that a physician be required to prove his innocence.[8]

Virtually every major legal challenge to the old common law has been successful, and it is to be hoped that in the near future women will not have to travel to New York for their abortions.*

Safety

There are five operations which have been performed for abortions. These are suction, dilatation and currettage, hypertonic saline amnioinfusion, hysterotomy, and hysterectomy. Let us discuss the worst procedures first: namely, hysterectomy and hysterotomy.

Although some have proposed that hysterectomy may be done safely for abortion when sterilization is desired, large studies do not support this contention. One of the most comprehensive studies was the *Professional Activity Study* from the Commission on Professional and Hos-

*Since this presentation was made, the Supreme Court of the United States on January 22, 1973, declared all traditional state abortion laws unconstitutional. On the basis of past behavior it would probably be a safe estimate that most physicians in other states will not take advantage of this ruling, but will await clarification from state legislatures.

pital Activities, Ann Arbor, Mich. In an analysis of 12,026 hysterectomies there was a mortality of 16.4 per 10,000 patients. Thirty-three per cent had postoperative fever; the average length of stay was 10.3 days; 15% were given blood transfusions; and 48% were given antibiotics.[2] Hysterectomy is not a minimal risk procedure and should not be offered as an abortion or sterilization method.

Hysterotomy has also been done with surprising frequency, since studies from other countries had already signaled that this procedure would lead to a death rate approaching that of hysterectomy. The Joint Program for the Study of Abortion (JPSA) reported upon 942 abortions by hysterotomy. There were three deaths, an incidence of 31.8 per 10,000. The deaths were from anesthesia, infection, and hemorrhage —inevitable complications of a major surgical procedure. Other serious complications were bowel obstruction, 11%, and wound disruption or infection, 30%. Hysterotomy is not a minimal risk operation, and should not be utilized as an abortional procedure.[13]

Saline abortion fared better in the Joint Program for the Study of Abortion. There were 14,690 procedures and two known deaths at time of publication, an incidence of 1.4/10,000, significantly less than the risks of hysterotomy and hysterectomy. One of the saline deaths was from water intoxication, an iatrogenic error in the use of oxytocin. The second death was a suicide one month later. Saline abortion has the expected morbidity from infection, retained placenta, and bleeding. In most instances these problems are manageable.

New types of complications have been recognized in saline abortion. The most widely discussed and misinterpreted is the intravascular coagulation which occurs after hypertonic saline amnioinfusion. It is not widely appreciated, but so-called intravascular coagulation or defibrination syndrome is a normal occurrence during parturition.[12] Precipitous drops in factor V, platelets, and fibrinogen occur at delivery along with appearance of fibrin split products. These same changes occur one hour after saline installation but to no greater degree than that which occurs with normal delivery. At the Albert Einstein College of Medicine hospitals we have not seen a clinical hemorrhage associated with pathologic defibrination in approximately 5,000 cases while other institutions report one in 400 cases. We think that this is partially good fortune and partially a matter of statistical sampling. However, we believe that many cases are physician-induced in an effort to expedite

the process of abortion. Several recurrent themes are seen when defibrination occurs: the use of oxytocin to shorten the abortion time, second instillations when labor does not occur in two to three days, or injection of more than 40 gm. of salt (200 ml. of 20% NaCl).[1, 4-6] We have scrupulously avoided these additional procedures, and believe that our failure to see the complication of defibrination is partly related to this cautious approach. It is the physician's obligation to terminate the pregnancy, but we should not feel obliged to insure delivery of the products on a specific day or time.

Saline abortion should probably be without risk of fatality: hypernatremia is preventable by good technique and the avoidance of excessive dosages of salt or second instillations. Hemorrhage and infection should be manageable complications, with the possible exception of an abruptio placentae with amniotic fluid embolus.

Suction abortion should also be without risk of fatality, particularly if it is performed with local anesthesia. The JPSA study has one fatality in 52,962 procedures, a suicide. Unfortunately, there were 19 hysterectomies in this group, a number which reflected our inexperience when we began performing these procedures. Perforation of the uterus occurs at one of two moments, the first at the original sounding of the uterus or dilation of the cervix. The uterus should be pulled down before the insertion of the dilator, and the first dilator should literally glide into the uterus. If any force is used the operator must be suspicious of the creation of a false tract, and must establish that he is in the uterine cavity before inserting the suction cannula and attempting the procedure. If there are any doubts, the procedure should be discontinued and rescheduled in one to two weeks. Most of these perforations occur at the level of the internal os of the cervix. A second less common perforation occurs when the suction cannula is actually pushed through the fundus. The aspiration should begin with the cannula in the mid-uterine portion, and the attempt to evacuate the fundus should be made after the uterus has begun to contract.

If hysterectomy and hysterotomy are not to be done, then how is the high-risk patient to be managed: e.g., the woman in whom a saline load is also contraindicated? There are several medical methods for terminating this type of pregnancy, but we have used two with complete success. One is intra-amniotic prostaglandin F_2 with oxytocin. The second is to instill 40 gm. of NaCl and then remove the fluid in the

amniotic cavity 30 minutes later. With this method only 10 gm. of salt appear to escape into the maternal system, and yet the pregnancy is effectively terminated.

Regulation of Abortion and Doctors

The role of the Board of Health in the regulation of abortion has been of great concern to me. There is little doubt that it has a legal basis for doing this, but I believe that the code as written is not a health code, but seems more to be a criminal code. For example, if I do not perform abortions exactly as stated in the code I am subject to criminal prosecution, rather a unique situation for a practicing physician.

W. J. Curran, professor of legal medicine, has reviewed the legal authority of health departments to regulate abortion practice.[3] Whereas classic public health law does not list the regulation of medical practice among the powers of health departments, there is no doubt "that a state legislature can delegate to a health department specific powers to enact regulations concerning standards and procedures for the performance of legal abortions by medical personnel and facilities." Curran then states: "The rather simple and straightforward legal principles stated above are not adequate for our guidance concerning abortion law."

The New York City Health Department enacted its Health Code on September 17, 1970, to take effect immediately. The regulations were adopted unanimously by the five-member Board of Health, with one member absent and not voting. This created an immediate problem for many of us. The Bronx Municipal Hospital Center had created an ambulatory, comprehensive birth control-abortion service funded by the Health and Hospital Corporation of New York City. The hospital and unit is directed by the full-time faculty of the Albert Einstein College of Medicine, and approximately 60% of the 900 abortions done in the first three months were done by the faculty in the hopes that we would gain experience and expertise in these procedures, and therefore more effectively teach residents and other physicians. We were quite happy with the service we created, and we entitled it The Gyn Day Hospital Unit, but discovered that we were in major conflict with several areas of the Health Code. We decided that our program was working well, and that we should attempt to persuade the Board of Health to modify its code. We have been unsuccessful in creating change.

The Board of Health asserts that the provisions were adopted "to provide public health standards of care in the performance of abortion, with proper regard for the health, safety and well being of the patient." I believe that the philosophical thrust of the code is wrong because, although it is aimed at the behavior of the marginal practitioner, its net effect is on the average physician who, I believe, is conscientious and cognizant of the welfare of his patients. One does not restrict the vast majority of the population in order to control the fringe.

The danger in this type of approach is that it stifles innovation and change. An example of this is early suction. Suction evacuation of the uterus has proved to be an exciting advance in gynecological care, and the logical extension of this technique is to perform it as early as possible during pregnancy. I believe it is generally agreed that the earlier a procedure is done the safer and easier it is for the woman. Early aspiration has received widespread publicity and has been entitled minisuction, menstrual extraction, menstrual aspiration, or menstrual regulation. It is an astonishingly simple and beautiful procedure. A semirigid 4- to 6-mm. plastic cannula with one or two openings is inserted into the uterus and then suction is applied at the outer end for approximately 30 seconds to a minute while the cannula is gently rotated around the cavity. It should be an office procedure analogous to others. The gynecologist inserts metal sounds into the uterus to determine size and position more accurately; plastic cannulas are insterted to provide passage of contraceptive devices or to perfuse CO_2 gas to test tubal patency; metal cannulas are inserted to obtain endometrial biopsies for fertility problems or suspicion of neoplasm; double-barreled plastic cannulas are inserted to obtain endometrial cytologic cell washes. Attaching suction to a comparable cannula is essentially the same procedure and therefore promises to be one of the most exciting advances in birth control imaginable, a procedure done before woman or physician is sure that pregnancy is present. However, this procedure may not be available to New York City gynecologists because, if the woman is early pregnant, then it could be interpreted as an office abortion, which is against the Health Code. So once again, as the Health Code law is now written, physicians are forced to choose the alternative of walking at the edge of this law or of allowing the passage of time, therefore exposing the woman to a procedure which may have a slightly greater risk and an expense at least three times that of the earlier procedure.

When governmental agencies regulate there is always the danger of abuse of power. A recent consultant group to the Health and Hospital Corporation was asked to attempt to cost-account and evaluate the quality of care in municipal hospital abortion programs. We discovered that we have been inspected by the Board of Health three times in the first 18 months but that the two largest municipal hospitals in Manhattan were awaiting their first inspection. We presume that we have been inspected because we are in violation of the code.[9] Comparative figures suggest that we are not violating our patients' health; in fact, the uninspected institutions perform an inordinate number of hysterotomies and hysterectomies.

Governmental agencies also have a habit of prying into the lives of its citizens. When the health code was created there also appeared a certificate which had to be filled out by the doctor on each woman undergoing an abortion. This certificate was entitled a Fetal Death Certificate, and required the doctor to submit the woman's name and address to the downtown agency. This appeared to be a gross violation of the woman's right to privacy, and placed the doctor in the conflicting position of retaining the patient's confidentiality (under the Medical Practices Act) or providing her name and address to a governmental agency. Recent political experiences with secret governmental papers would seem to enforce the concept that it would be best for governments not to be storehouses of secret information on citizens. This issue was taken to court and, on August 2, 1972, Justice Samuel A. Spiegal of the New York Supreme Court ruled that "requiring the identification of the patient is an abuse of discretion and is arbitrary and capricious."[10] The requirement to disclose the patient's name and address is an unlawful invasion of her right to privacy. The disclosure of the identity of the patient by her doctor without her consent would be a violation of privilege and confidentiality of the physician-patient relation.

Oliver Wendell Holmes wrote: "The truth is that medicine, professedly founded on observation, is as sensitive to outside influences, political, religious, philosophical, imaginative as is the barometer to the changes of atmospheric density." Abortion appears to epitomize Holmes' wisdom.

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